Claims:

1. A method of synchronizing two ends of a bi-directional network communication path comprising:

repeatedly transmitting from an end of the bi-directional communication path a sequence of predetermined characters if reception is lost at that end; and

resynchronizing the link from both ends if the sequence of predetermined characters is received at the other end.

2. The method of claim 1, wherein the predetermined character comprises an idle 1 character.

3. The method of claim 2, wherein the sequence of predetermined characters comprises seven successive idle 1 characters.

4. The method of claim 1, and further comprising:

signaling the loss of synchronization after reception is lost.

5. The method of claim 1, wherein resynchronization at an end comprises detecting and transmitting three successive idle 1 characters.

6. The method of claim 5, wherein resynchronization at an end further includes detecting and transmitting an idle 2 character.

7. The method of claim 6, and further comprising:

returning to loss of synchronization if an idle 2 character is not detected at an end within a predetermined amount of time.

8. The method of claim 6, and further comprising:

applying a hysteresis sub-process at end end if nonvalid data is received at that end after resynchronization has occurred at both ends.

9. The method of claim 5, and further comprising:

returning to loss of synchronization if three successive idle 1 characters are not detected at an end.

10. An apparatus adapted to synchronize two ends of a bi-directional network communication path comprising:

a network interface unit adapted to repeatedly transmit from an end of the bi-directional communication path a predetermined character if reception is lost at that end;

said network interface unit being further adapted to detect a predetermined set of characters signaling to resynchronize the link from that end if reception is lost at the other end.

11. The apparatus of claim 10, wherein the predetermined character comprises an idle 1 character.

12. The apparatus of claim 10, wherein the predetermined set characters comprises three successive idle 1 characters.

13. The apparatus of claim 10, wherein said network interface unit is further adapted to detect and transmit another set of predetermined characters after detecting said set of predetermined characters.

14. The apparatus of claim 13, wherein said set of predetermined characters comprises three successive idle 1 characters and the another set of predetermined characters comprises an idle 2 character.

15. The apparatus of claim 10, wherein said network interface unit is further adapted to resynchronize the link from that end if seven successive idle 1 characters are received.

16. A system comprising:

a bi-directional communication path;

nodes coupled at each end of the bi-directional communication path;

said nodes being adapted to bi-directionally resynchronize the link so that if reception is lost at one end.

17. The system of claim 16, wherein said nodes are adapted to comply with the NGIO specification.

18. The system of claim 16, wherein each of said nodes are incompatible with nodes complying with the ethernet specification.

19. The system of claim 16, wherein each of said nodes are incompatible with nodes complying with the gigabit ethernet specification.